Montana Cardiovascular Disease Prevention and Control Plan 2000

Montana Department of Public Health and Human Services

MONTANA
CARDIOVASCULAR HEALTH PROGRAM

Acknowledgments

This report was produced by the Montana Cardiovascular Health Program and the Montana Cardiovascular Disease PreventionTask Force. A list of Task Force members appears at the end of this report.

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MONTANA
Department of Public Health & Human Services

DEPARTMENT OF
PUBLIC HEALTH AND HUMAN SERVICES

MARC RACICOT
GOVERNOR

LAURIE EKANGER
DIRECTOR

STATE OF MONTANA

Today, cardiovascular disease is the number one killer of Montanans. The primary cardiovascular diseases, heart disease and stroke, accounted for 2,577 deaths in 1998, or 32% of all deaths. As the "baby boomer" population ages, the number of Montanans affected by chronic diseases such as cardiovascular disease will grow and significantly affect our citizens' health status and heath care needs.

With a coordinated effort among health organizations, health professionals, and other partners, we can reduce the burden of cardiovascular disease. By focusing on such health behaviors as tobacco use, nutrition, physical activity, and lack of clinical preventive services, and on creating policies and environments that support and promote healthy behaviors, we can lessen the burden of cardiovascular disease.

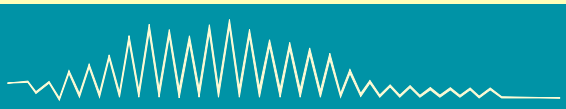
The benefits will be immense—improved quality of life, lower mortality rates, and savings in health care dollars. Implementing the comprehensive, statewide approach outlined in this document, *Montana Cardiovascular Disease Prevention and Control Plan 2000*, is a vital first step toward realizing these benefits.

Sincerely,

Governor Marc Racicot

Montana Cardiovascular Disease Prevention and Control Plan 2000

Contents



Executive Summary

The *Montana Cardiovascular Disease Prevention and Control Plan 2000* focuses efforts to reduce the burden of cardiovascular disease (CVD) in our state. The Cardiovascular Disease Prevention Task Force will take the lead in implementing this five-year plan.

Key issues:

Heart disease continues to be the leading cause of death in the United States and in Montana.[6,14] Many of these deaths are due to behaviors that are modifiable—including physical inactivity, poor eating habits, and tobacco use. Diabetes and high serum cholesterol, which increase the risk for heart disease, can often be managed and controlled through diet changes, regular exercise, and drug therapy.

How Montana is doing:

Currently, Montanans are not reaching several of the national Healthy People 2010 Objectives, developed by the U.S. Department of Health and Human Services, that relate to physical activity, fruit and vegetable intake, blood cholesterol monitoring, hypertension prevalence, and use of cigarettes.[7,12]

CVD strategic direction:

The CVD Task Force has selected statewide strategies to achieve the nation's CVD-related Healthy People 2010 Objectives. "Priority populations" are Native Americans, older adults, and children of every race. Many of the strategies identified are designed to influence environment (social and physical) and individual behavior. Individuals are more likely to make desired behavior changes if the environments in which they live support the desired behavior.

CVD Health Objectives for Montana:

Key statewide health objectives targeted in the CVD Prevention and Control Plan are:

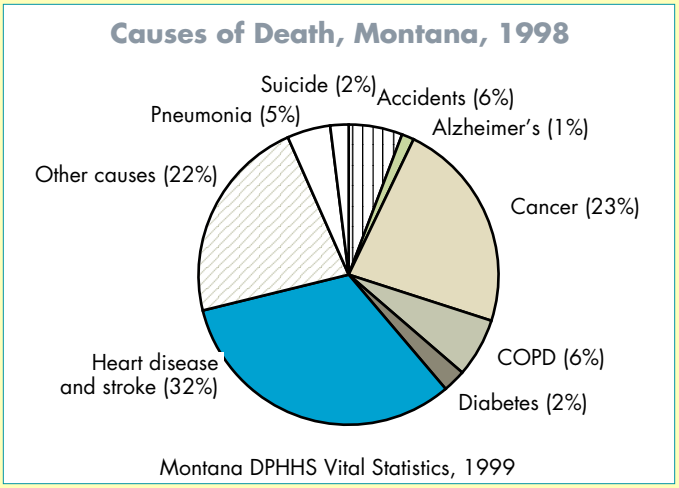
- Reduce use of cigarettes.
- Increase the proportion of Montana adults with high blood pressure who are taking action to control their hypertension.
- Increase the proportion of adults who have had their blood cholesterol checked within the preceding five years.
- Improve fruit and vegetable intake.
- Increase the proportion of youth who regularly engage in moderate physical activity.

Introduction

Purpose of the CVD Prevention and Control Plan

The Montana CVD Prevention and Control Plan will provide a statewide focus for CVD prevention, health promotion, and treatment activities during 2000-2004. It is important to maximize the use of resources for CVD prevention and treatment, especially in a rural state with a geographically dispersed population and very limited resources.

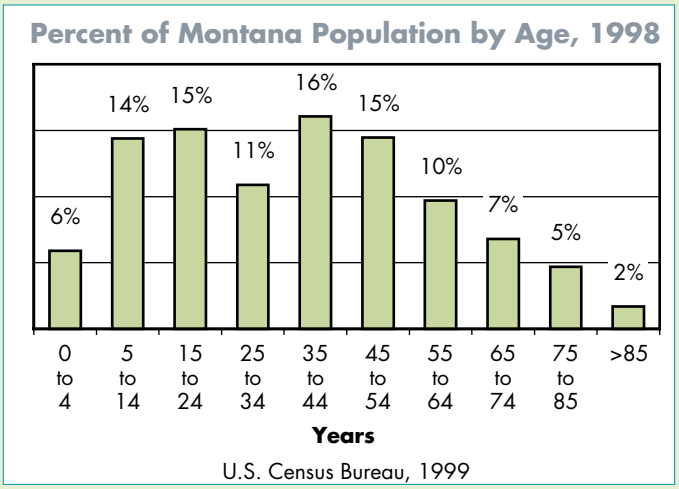
The Cardiovascular Health Program will collaborate with existing services and health organizations to accomplish the goals outlined in the plan. The strategies in this plan will be used to implement population-based interventions to reduce the burden of CVD in Montana.



Leading Cause of Death

Heart disease is the leading cause of death in Montana and in the United States.[6,14] During the 1900s, life expectancy increased dramatically, due in part to advances in health care, decreased infant and child mortality, and improved nutrition. Americans are living longer, but chronic disease has surpassed infectious disease as the leading cause of mortality in the nation.

The term "cardiovascular disease" includes ischemic heart disease (also known as coronary artery disease or coronary heart disease), cerebrovascular disease or stroke, heart failure, hypertensive heart disease and diseases of the arteries, veins and circulatory system.[6]



In 1998, heart disease and stroke were the leading causes of death in Montana for both males and females, accounting for more than 32% of all deaths.[14] In comparison, more than 38% of deaths in the United States were due to heart disease and stroke in 1997.[7]

A statewide survey of Montana physicians found that a majority of those who responded felt CVD is a severe problem for our state.[18]

Actual Causes of Death

Although a majority of deaths in the United States are due to chronic diseases, the *actual* or underlying causes of death are often related to risk factors that can be modified. The major contributors to CVD are smoking, poor nutrition and physical inactivity.[9] These lifestyle factors may increase the likelihood of complications associated with diabetes and other chronic illnesses.

Primary prevention of CVD is intended to keep people from getting CVD initially. Secondary prevention is intended to limit complications related to heart disease in persons who have CVD or known CVD risk factors. Lifestyle changes are essential to accomplish both primary and secondary prevention goals. In addition, secondary prevention involves a variety of medical tests and procedures.[1]

Priority Populations

Older Adults and Children:

In 1998, Montana's estimated population was 880,453. More than 20% were aged 0-14 years, 26% were aged 15-34 years, and more than 30% were aged 35-54 years.[23] While persons 55 years and older account for less than 23% of residents, this age group experiences nearly all overt CVD in the state.

The median age in Montana has been steadily rising since 1990.[14] Primary prevention will especially focus on young persons, while secondary prevention will largely focus on adults.

Native Americans:

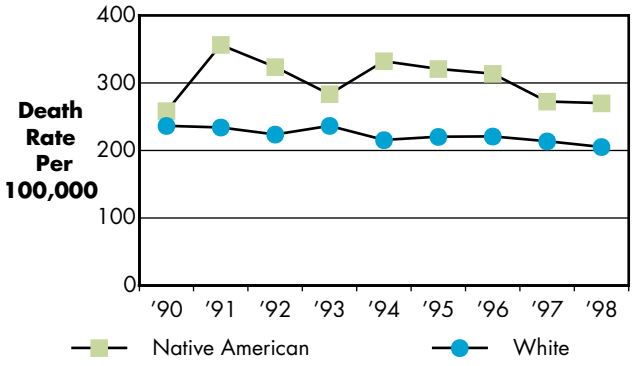
Native Americans, the largest minority group in Montana, accounted for about 6% (55,616) of the state's population in 1998. More than 92% of Montana residents were white.[23]

From 1990 to 1998, Montana Native Americans experienced a higher death rate related to circulatory disease than did Montana whites. In 1998, there were 270 deaths per 100,000 Native Americans due to circulatory disease, compared with a rate of 205 deaths per 100,000 white residents.[14]

Native American women in Montana had a higher heart disease death rate in 1991-1995 compared with the national average for Native American women during the same time period.[5]

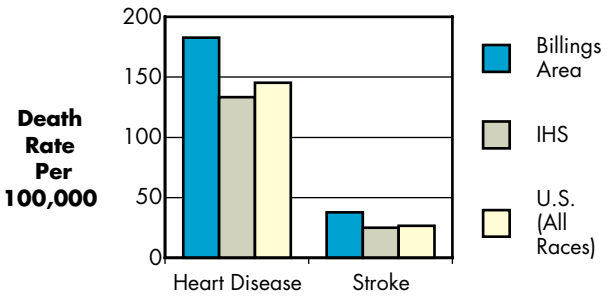
- In 1992-1994, the age-adjusted heart disease and stroke death rates for the Billings Area Indian Health Service (IHS) population exceeded both the U.S. average and the IHS national average.[20]
- A 1999 telephone survey of Native Americans living on or near Montana reservations found that more than 60% of respondents ages ≥ 45 years were overweight, and more than 40% had hypertension.[13]
- In 1999, the prevalence of diabetes for adults ages 18 and older living on Montana reservations was 13%. This is four times the

Age-adjusted Circulatory Disease* Death Rates by Race, Montana 1990-98



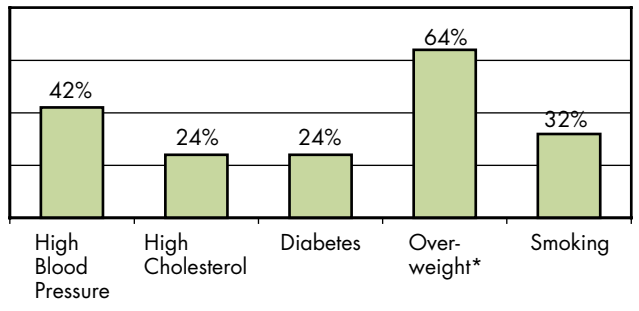
Montana DPHHS Vital Statistics, 1999 *ICD9 390-459

1992-94 Heart Disease and Stroke Death Rates for Billings-area Indian Health Service Compared with U.S. and IHS National Averages



Regional Differences in Indian Health, IHS, 1997

Percent of Native Americans Age 45 Years And Older with Selected CVD Risk Factors Montana, 1999 (N=401)



Montana Diabetes Surveillance and Clinical Communication, Jan. - Mar. 2000 *BMI≥27

prevalence for all Montanans (3%). Native Americans ages ≥ 45 years with diabetes were more likely to report hypertension, high cholesterol and CVD (heart attack, angina and stroke) than were other Montanans in this age group.[13]

- In 1998, Native Americans in Montana younger than 45 years reported higher smoking rates (42%) than those 45 years and older (32%).[13] The smoking rate for adult white Montanans in 1997-1998 was 21%.[12]
- Only 54% of Native American patients with hypertension in the Billings IHS Area had their blood pressure under control in 1999.[2]

Acronyms Used in this Report

AHA	American Heart Association
BMI	Body Mass Index
BRFSS	Behavioral Risk Factor Surveillance Survey
CVD	Cardiovascular disease

("Total cardiovascular diseases" = ICD9 390-459. The ICD9 manual refers to these codes as "diseases of the circulatory system.")

DPHHS	Department of Public Health & Human Services
HDL	High-density lipoprotein
HBP	High blood pressure
IHS	Indian Health Service
IHD	Ischemic heart disease
YRBS	Youth Risk Behavioral Survey

Data Sources

Data sources used in this plan include the Montana Behavioral Risk Factor Surveillance Survey (BRFSS) 1997 and 1998; Youth Risk Behavior Survey (YRBS) 1999; four 1999 statewide surveys targeting physicians, elementary school teachers, consumers, and 4th-6th grade students; Vital Statistics mortality data; a 1999 CVD survey of Montana Native Americans; and the report, *IHS Regional Differences in Indian Health.*

Data from Montana Vital Statistics have been age-adjusted according to the 1970 U.S. population to make comparisons across different populations. Data from the *IHS Regional Differences in Indian Health* have been age-adjusted according to the 1940 U.S. population. The survey of Montana Native Americans used a random-digit-dial telephone sample of phone numbers with prefixes on or near reservations.

Cardiovascular Disease State Profile

Death rate trends in Montana:

- From 1990 to 1998, the circulatory disease death rate in Montana declined more than 13%.[14]
- Two important components of CVD are ischemic heart disease and stroke. From 1990 to 1998, Montana's death rate for ischemic heart disease fell more than 27% while that for stroke declined 10%.[14]
- CVD-related death rates increase sharply for persons aged 45 and older.[14]

Major risk factors for CVD:

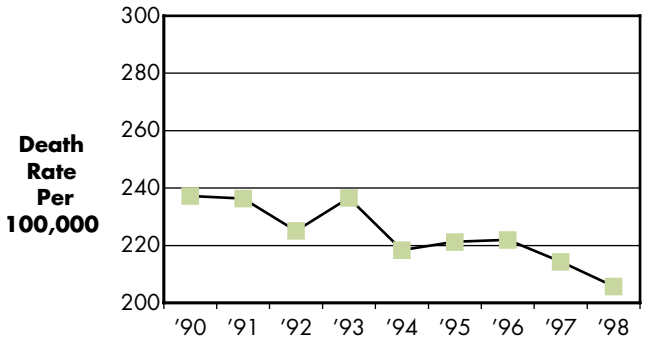
The American Heart Association (AHA) has identified several risk factors for CVD. Individuals can modify some of these risk factors through lifestyle changes. The more risk factors a person has, the greater the risk of developing CVD. Non-modifiable risk factors are increasing age, male gender and heredity.[1]

Montanans' major modifiable risk factors:

Risk factors that can be modified or controlled through lifestyle changes and/or medication include: cigarette smoking, elevated blood pressure, high blood cholesterol, diabetes, obesity and physical inactivity.[1]

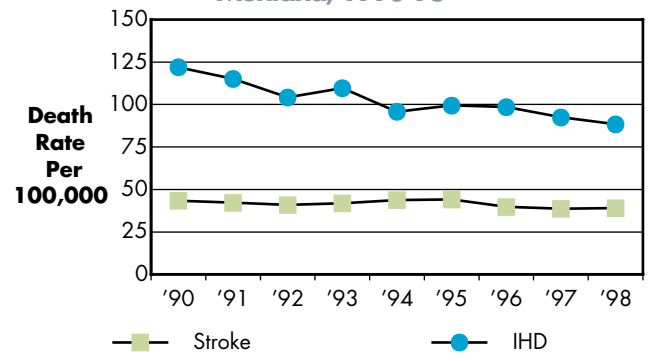
Montanans are more physically active than Americans in general, and Montana's rates of obesity are lower than the national average. But obesity rates increased 56% in our state from 1991 to 1998, and a high percent of Native Americans are classified as overweight.[12,13]

Age-adjusted Circulatory Disease* Death Rates, Montana, 1990-98



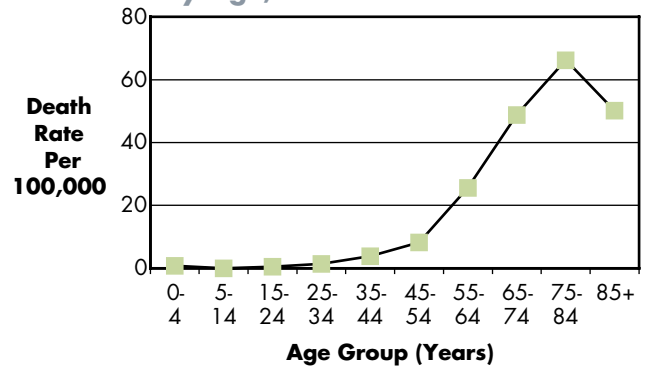
Montana DPHHS Vital Statistics, 1999 *ICD9 390-459

Stroke and Ischemic Heart Disease* Death Rates Montana, 1990-98



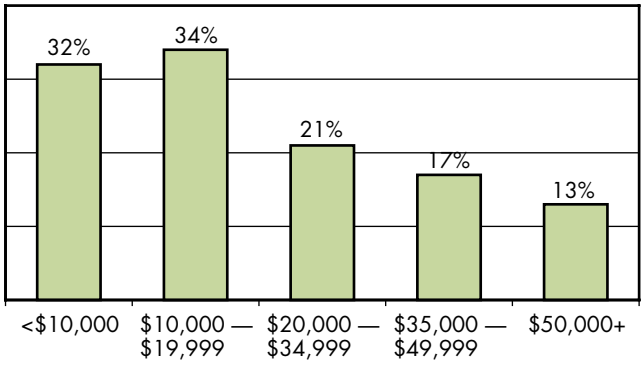
Montana DPHHS Vital Statistics, 1999 *ICD9 410-438

Cardiovascular Disease Death Rate By Age, Montana 1998



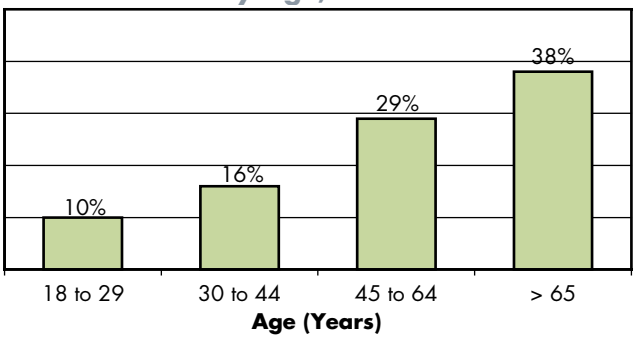
Montana DPHHS Vital Statistics, 1999

Percent of Montanans Reporting Current Smoking by Income Level, 1997-98



Montana BRFSS, 1999

Montanans Reporting Ever Having Been Told They Have High Blood Pressure By Age, 1997



Montana BRFSS, 1999

In 1999, the prevalence of hypertension in Montana was comparable to the national average. There were no significant gender differences for Montana's prevalence of hypertension or high blood cholesterol.[12]

Prevalence of tobacco use:

- In 1999, 35% of Montana students in grades 9-12 had smoked cigarettes on one or more of the past 30 days.[15]
- In 1997-1998, 21% of Montana adults reported current smoking. Smoking rates were higher in persons with lower income levels.[12]

Prevalence of hypertension:

- In 1997, 23% of Montana adults reported having ever been told by a health professional that they had high blood pressure, and the prevalence increased with the age of respondents.[12]
- Choosing a diet with adequate amounts of fruit and vegetables may help control blood pressure levels. Less than one in four Montana adults reported eating at least five daily servings of fruit and vegetables. Males (18%) were less likely than females (29%) to achieve this goal.[12]
- Only 12% of Montana youth ages 12-18 years reported eating fruit three or more times on the preceding day. Forty-nine percent reported eating french fries or potato chips one or more times on the preceding day. More males than females reported eating french fries or potato chips.[15]

Prevalence of high blood cholesterol:

- Prevalence of high cholesterol rises with increasing age. Thirty-one percent of Montana adults reported having ever been told by a health professional that they had high blood cholesterol.[12] In comparison, 21% of U.S. adults had high total blood cholesterol from 1988-1994.[7]
- In 1999, Montanans who participated in a CVD telephone survey and who had high cholesterol were asked how they planned to decrease their cholesterol levels. The most common responses were to reduce their fat intake and to increase their physical activity.[3]

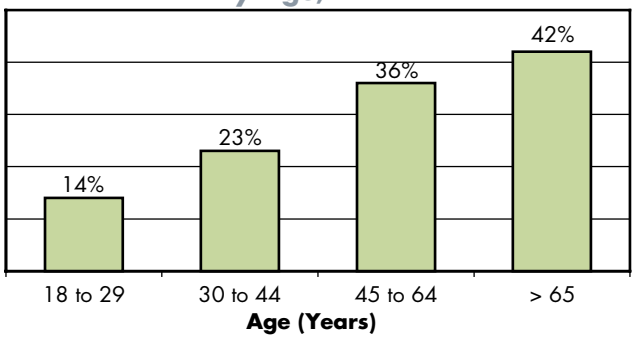
Overweight and obesity:

- A person who is overweight or obese is at greater risk for hypertension, high blood cholesterol, type 2 diabetes, heart attack, and stroke.[1] For combined years 1997 and 1998, 52% of all Montanans were classified as either overweight or obese.* Males in Montana (61%) were significantly more likely to be overweight than females (43%).[12]

  *Overweight and obesity are determined by Body Mass Index (BMI), where BMI equals the weight in kilograms divided by the square of the height in meters. Overweight is defined as BMI=25-29.9 while obese is BMI≥30.

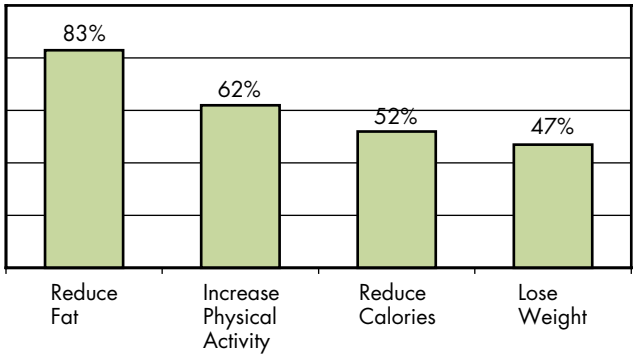
- In 1998, the prevalence of obesity for adults in Montana was 14.7%.[12] In comparison, the nationwide prevalence of obesity was 17.9%.[11]
- Of those Montanans found to be overweight or obese, 28% had ever been told that their blood pressure was too high versus 16% of those who were not overweight (BMI<25).

Montanans Reporting Ever Having Been Told They Have High Cholesterol By Age, 1997



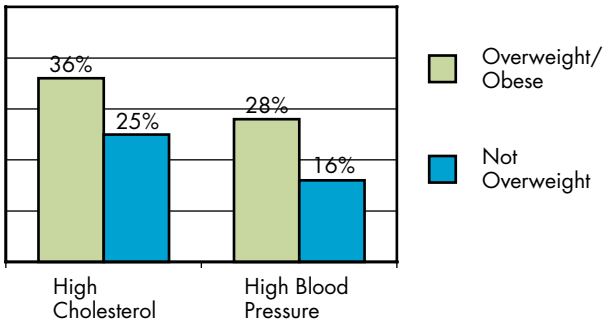
Montana BRFSS, 2000

How Montanans with High Cholesterol Plan to Decrease Levels, 1999



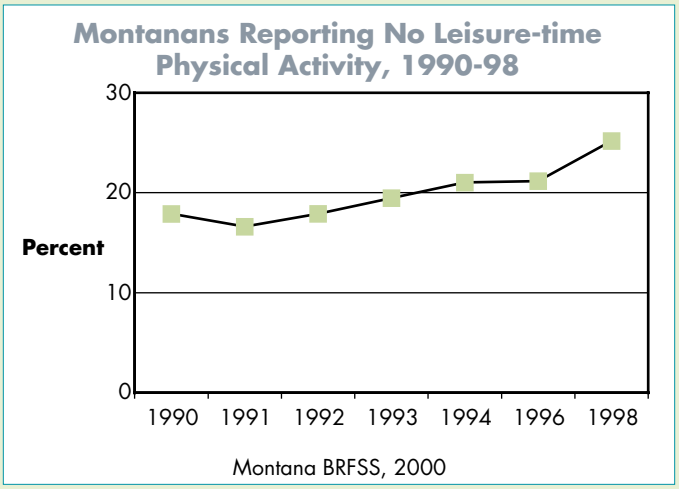
Montana CVD Telephone Survey, 1999

Percent of Montanans with High Cholesterol Or High Blood Pressure By Weight Classification*, 1997



Montana BRFSS, 2000

*BMI ≥ 25



Thirty-six percent of overweight or obese respondents had ever been told that their cholesterol was too high, compared with 25% of Montanans who were not overweight.[12]

Physical activity:

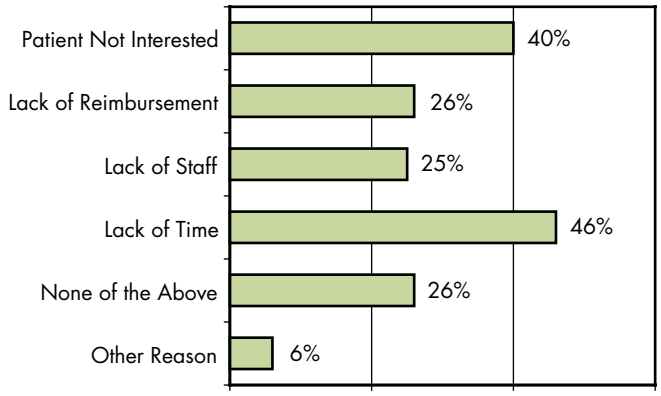
- Regular physical activity may help maintain weight, control blood pressure, and raise the level of high-density lipoprotein (HDL) or "good cholesterol." Nonetheless, from 1990 to 1998, the share of adult Montanans who reported *no* leisure time physical activity increased from 18 to 25%.[12]
- In 1999, nearly 70% of Montana youth ages 12 to 18 years participated in sports or physical activities on three or more of the past seven days. Male respondents (76%) were more active than female respondents (63%).[15]

  Only 36% of Montana youth attended physical education classes on a daily basis.[15]

The 1999 Montana Physicians CVD Survey

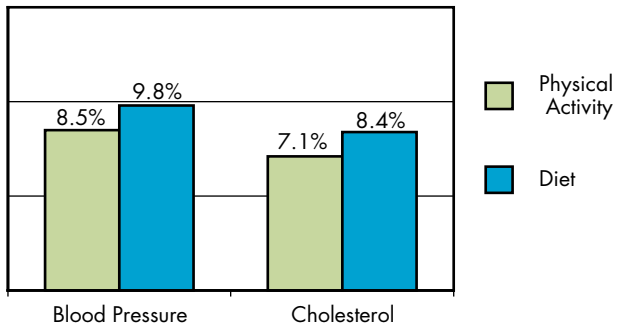
- In a statewide survey of physicians—including cardiologists, family practice, internists, and obstetric-gynecologists—respondents were asked about their practices and perceptions related to the treatment and prevention of high cholesterol and hypertension. Most responding Montana physicians felt that cardiovascular disease is a severe problem for our state in terms of cost, morbidity, and mortality.[18]
- Most surveyed Montana physicians also felt their patients had *not* been successful in making positive diet and physical activity changes to control their high blood pressure or cholesterol level.[18]
- Lack of time was the most common barrier that prevented Montana physicians from conducting patient counseling.[18]

Most Common Barriers to Patient Counseling



Physician CVD Survey, 1999 MDPHHS

Percent of Montana Physicans Who Feel Their Patients Are Making Lifestyle Changes to Control Hypertension and Cholesterol, 1999



Physician CVD Survey, 1999 MDPHHS

The Socio-ecological model

This model is based on the belief that certain changes in the social and physical environment will promote positive changes in individuals, and the support of individuals in the population is essential for implementing environmental changes.[10,21]

Stages of change theory

This model recognizes that not everyone is ready to change their behavior at a given time. Behavior change is a non-linear process in which individuals transition through various stages of readiness to change. People can enter and exit the process at any point and may repeat a stage several times. The five stages of change are: Precontemplation, Contemplation, Preparation, Action, and Maintenance.[19]

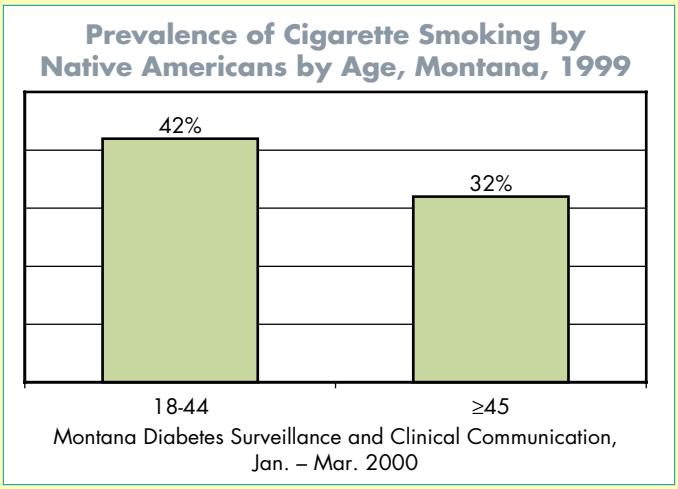
Conceptual Frameworks: Prevention and Control of CVD

The strategies identified in this CVD Prevention and Control Plan are designed to influence individual behavior change at multiple levels—interpersonal, organizational, community and public policy. When trying to change health behaviors of a population, powerful forces such as social, psychological, and environmental conditioning can become obstacles. As a result multiple sectors such as work sites, schools, churches, clinics and Montana reservations will be the channels used in community efforts. In addition to targeting individual behavior change, CVD intervention strategies will focus on policy and environmental changes and improving or integrating systems used in clinical treatment of CVD.[10,21]

Because individuals move through varying "stages of change" when modifying their behavior, selected CVD interventions will be tailored according to the target population's or individual's readiness to change. For example, a physical activity promotion may target "pre-contemplators" who are unaware of the link between sedentary behavior and CVD risk while another program may target "contemplators" who are already considering making dietary changes to lose weight.[19]

On the this page are two examples of models that will be used in the CVD Prevention and Control Plan to address the priority populations in Montana—children, Native Americans, and older adults with a high prevalence of risk factors for CVD.

Cardiovascular Disease Intervention Strategies: An Initial Action Plan



The CVD Task Force identified and discussed many potential strategies in developing the CVD Prevention and Control Plan. Through a priority-setting process that took into account the feasibility of various options and the Task Force's resources, the following strategies were identified as the top-ranking approaches over the next several years. A major emphasis is placed on secondary prevention efforts for Montana's priority populations (older adults and Native Americans), encouraging lifestyle changes such as physical activity and dietary behavior for primary prevention, and early intervention for children.

The Task Force has proposed several strategies targeting Native Americans but feels that additional input from Native Americans on the reservations and in urban areas is necessary before specific priorities can be identified and implemented.

Tobacco Use Prevention

Overall Goal:

1. Decrease cigarette use among Montana adults and youth.

Specific Objectives:

Healthy People (HP) 2010 Objective—Reduce use of cigarettes among adults aged 18 years and older to 12%. (U.S. Baseline: 24% smoked cigarettes in 1997.[7])

> *Current Status (Montana BRFSS 1997-98 Combined)*: Twenty-one percent of adult respondents reported currently smoking.[12] [9 percentage points from the objective]

HP2010 Objective: Reduce cigarette smoking among adolescents in grades 9-12 to 16%. (U.S. Baseline: 36% used cigarettes in 1997.[7])

Current Status (Montana YRBS 1999): Thirty-five percent of Montana youth reported smoking cigarettes at least 1 day during the past 30 days.[15] [19 percentage points from the objective]

Actions:

Policy/Environmental Strategies

1. Work to adopt policies to encourage smoke-free environments in public places, in schools, and in drug-free zones surrounding schools.*
2. Advocate for a raise on cigarette taxes to enhance efforts to stop smoking.*

Program Services

1. Implement a behavioral change program such as a Montana Quitline (800# multi-session phone counseling).*
2. Develop a clinic-based system to help providers identify smokers, including younger people. Target patients who have had an acute coronary event.*
3. Work with health care providers to implement cessation strategies according to Agency for Health Care Research and Quality guidelines.
4. Enhance provider capabilities to ensure that provider inquiries regarding their patients' smoking status are routine and that smoking cessation programs or assistance, such as videotapes of cessation classes, are available in rural areas.
5. Use Prochaska's stages of change theory to evaluate ways to maintain non-smoking behavior in subsequent months and years after patients have stopped smoking.

Reaching Native Americans

1. Collaborate with the Montana Governor's Advisory Council on Tobacco Use Prevention and the AHA to work with tribal groups to create and enforce laws regarding minors' access to tobacco on reservations.

Surveillance

1. Continue to track the prevalence of Montana adults and youth using tobacco products.

* indicates Year 1 or Year 2 priority

Hypertension

Overall Goal:

1. Increase the proportion of Montana adults who have hypertension under control (less than 130/85 mm Hg).

Specific Objectives:

HP2010 Objective: Increase to at least 50% the proportion of people with high blood pressure whose blood pressure is under control. (U.S. Baseline: 18% 1988-1994.[7])

HP2010 Objective: Reduce to 16% the proportion of adults with high blood pressure. (U.S. Baseline: age-adjusted prevalence rate 28% for the total population ages 20 years and older 1988-1994.[7])

HP2010 Objective: Increase to at least 95% the proportion of people with high blood pressure who are taking action to help control their blood pressure. (U.S. Baseline: 72% of people with high blood pressure aged 18 and older using medication and diet 1998.[7])

> *Current Status (Montana CVD Telephone Survey 1999)*: Of those respondents who currently have hypertension, 91% are taking medication.[3] [4 percentage points from objective]

Actions:

Policy/Environmental Strategies

1. Assess whether health insurance companies offer financial incentives to employees who successfully lower their high blood pressure.

Program Services

1. Facilitate blood pressure screenings and distribute hypertension educational materials in settings such as:*
   - County health departments
   - Churches—work with Carroll College Parish Nurse Center
   - Work sites
   - Hospital community outreach programs and cardiac rehabilitation centers
   - Congregate meal sites
   - Community health centers
   - Public facilities such as banks, post offices, check-out lines at stores, restaurants

* indicates Year 1 or Year 2 priority

2. Work with the AHA to increase awareness of physicians, nurses, nurse practitioners, and physician assistants of guidelines for evaluation and treatment of high blood pressure.*
3. Work with the AHA to distribute blood pressure guidelines through county health departments, county extension agents, parish nurses, and a statewide media campaign to educate the public regarding appropriate blood pressure levels.*
4. Monitor hypertension treatment for patients with diabetes by using the Diabetes Care Monitoring System in selected clinics. Assess current clinical treatment protocols and implement diagnosis-based protocols for hypertension management, such as patient cards logging blood pressure readings and medications, home monitoring, etc.
5. Increase health professionals' awareness of the Dietary Approaches to Stop Hypertension (DASH) diet in the treatment of hypertension.
6. Work with county health departments, Healthy Communities coalitions, and Community Nutrition Coalitions to develop a resource guide with community-specific information on available secondary prevention resources that doctors can use to make patient referrals. Incorporate a risk assessment that identifies a patient's stage of readiness to change.

Reaching Native Americans

1. Work with IHS, urban and tribal health care providers to develop a systematic CVD surveillance and control mechanism that is modeled after the current system used to control diabetes in Native Americans.
2. Work with Community Health Representatives on the reservations to conduct blood pressure screenings and referrals.
3. Conduct blood pressure screenings at Native American events such as Pow Wows and festivals.

Surveillance

1. Continue to track the prevalence of hypertension in Montanans.

* indicates Year 1 or Year 2 priority

High Serum Cholesterol

Overall Goal:

1. Decrease the proportion of Montana adults with elevated serum cholesterol.

Specific Objectives:

HP2010 Objective: Reduce the proportion of adults with high total blood cholesterol to 17%. (U.S. Baseline: 21% of adults ages 20 years and older had cholesterol levels of 240 mg/dL or greater, age-adjusted 1988-1994.[7])

HP2010 Objective: Increase to at least 80% the proportion of adults who have had their blood cholesterol checked within the preceding five years. (U.S. Baseline: 68% of people aged 18 and older 1998.[7])

> *Current Status (Montana CVD Telephone Survey 1999)*—More than 64% of respondents reported having had their blood cholesterol checked within the past five years.[3] [16 percentage points from the objective]

Actions:

Policy/Environmental Strategies

1. Assess health plan coverage of blood cholesterol screening.*
2. Encourage health insurance companies to offer financial incentives to employees who successfully reduce their high blood cholesterol level.

Program Services

1. Compile a directory that explains the process to access assistance programs that help low-income patients obtain free medications to treat high cholesterol, hypertension, and diabetes. Distribute the directory to physicians.*
2. Educate patients who have identifiable coronary disease or a positive family history to ensure that they know their lipid status and seek appropriate early treatment.*
3. Develop a secondary prevention community resource guide for patients.
4. Promote general blood cholesterol screenings using simple, convenient and inexpensive methods to measure total

* indicates Year 1 or Year 2 priority

cholesterol. Refer clients who have abnormal findings to health care providers to 1) obtain a full lipid profile, and 2) discuss possibilities for drug treatment and lifestyle changes to improve lipid levels.

5. Educate patients who have high cholesterol or who have had a myocardial infarction about the AHA and National Cholesterol Education Program guidelines for managing high cholesterol.

Reaching Native Americans

1. Support IHS and tribal efforts to expand the IHS Health Promotion, Disease Prevention System to track lipid and blood pressure levels. Include urban Indian populations and non-IHS patients.

Surveillance

1. Continue to track the prevalence of hypercholesterolemia in Montanans and the proportion who have had their cholesterol checked within the past five years.
2. Assess and monitor diabetes and CVD prevalence and medication use among Montana Medicaid recipients.

Overweight and Obesity

Overall Goal:

1. Increase the proportion of Montana adults with Body Mass Index (BMI) < 25.

Specific Objectives:

HP2010 Objective: Increase to at least 60% the prevalence of healthy weight (defined as a BMI 18.5-25) among all people ages 20 years and older. (U.S. Baseline: 42% 1988-1994.[7])

Current Status (Montana BRFSS 1997-1998): Forty-eight percent of Montanans have a BMI less than 25.[12] [12 percentage points from the objective]

Actions:

Strategies discussed in the nutrition and physical activity section may also apply to weight management.

Program Services

1. Promote awareness among health professionals and the public of the prevalence of obesity in Montana.*

* indicates Year 1 or Year 2 priority

2. Promote public awareness about methods to improve health status (normal lipid profiles, normal blood pressure, etc.) independent of weight loss.*
3. Promote realistic expectations concerning weight management.
4. Promote weight management programs with faith-based organizations.

Reaching Native Americans

1. Modify the "Strong in Body and Spirit" diabetes curriculum to focus on risk factors related to CVD.*
2. Work with Community Health Representatives on Montana reservations to develop culturally competent weight management interventions.

Surveillance

1. Continue to track the prevalence of overweight, obesity, and weight loss attempts in Montanans.

Physical Activity

Overall Goal:

1. Increase the proportion of Montanans who are physically active.

Specific Objectives:

HP2010 Objective: Increase to at least 30% the proportion of people aged 18 and over who engage regularly, preferably daily, in sustained physical activity for at least 30 minutes per day. (U.S. Baseline: 15% 1997.[7])

> *Current Status (Montana BRFSS 1998)*: Twenty-five percent of Montana adults reported engaging in no leisure-time physical activity. Twenty-two percent reported engaging in regular and sustained physical activity.[12] [8 percentage points from the objective]. Thirteen percent reported engaging in vigorous physical activity.[12]

HP2010 Objective: Increase to at least 30% the proportion of young people in grades 9 to 12 who engage in moderate physical activity for at least 30 minutes on five or more of the previous seven days. (U.S. Baseline: 20% 1997.[7])

* indicates Year 1 or Year 2 priority

Current Status (Montana YRBS 1999): More than 21% of young people in grades 9 to 12 reported participating in physical activity for at least 30 minutes that did not make them sweat or breathe hard, such as fast walking, slow walking, slow bicycling, skating, pushing a lawn mower, or mopping floors on at least five of the past seven days.[15] [9 percentage points from objective]

HP2010 Objective: Increase to at least 25% the proportion of middle and junior high schools that require daily physical education for all students. Increase to at least 5% the proportion of senior high schools that require daily physical education for all students. (U.S. Baseline: 17% for middle and junior high; 2% for senior high.[7])

Current Status (Montana YRBS 1999): Thirty-six percent of Montana students in grades 9 to 12 attended daily physical education classes.[15]

HP2010 Objective: Increase to 75% the proportion of children and adolescents who view television two or fewer hours per day. (U.S. Baseline: 60% of persons aged 8-16 years 1988-1994.[7])

Current Status (Montana YRBS 1999): Seventy-six percent of Montana students in grades 9 to 12 viewed television two or fewer hours per day on the average school day.[15]

Actions:
Policy/Environmental Strategies

1. Work with the Montana Department of Transportation and the Alternative Energy Resource Organization (AERO) to develop a policy focusing on city design that makes communities more walkable or bikeable.*
2. Work with insurance providers to encourage reduced insurance premiums for members who are physically active.*

* indicates Year 1 or Year 2 priority

3. Recommend a policy requiring more frequent (daily, when possible) Health Enhancement classes for K-12.*
4. Encourage policy changes to extend the hours that Montana schools are open so that children and the community can participate in physical activity when class is not in session.
5. Encourage Montana schools to adopt a policy requiring students to take a daily in-class physical activity break.
6. Encourage work site policy changes allowing extended lunch hours for employees who are physically active during the lunch break.
7. Work with "Take Another Way State Employees" (TAWSE) Program to reduce health insurance premiums for employees walking or biking to work.

Program Services

1. Expand the "Kids' Sports & Fitness Fest," piloted in Helena, Montana, to additional communities to encourage lifelong, non-competitive physical activity for elementary school children.*
2. Replicate the "Kids Walk to School Day," which was piloted in Helena, Montana. Coordinate the event with Montana Department of Transportation.*
3. Promote the use of the "Reach for Health" nutrition, physical activity and wellness curriculum in 2nd and 5th grade classrooms in Montana.*
4. Work with Eat Right Montana to coordinate a statewide physical activity incentive program in observance of the Lewis and Clark bicentennial.*
5. Work with county WIC clinics to promote "Turn off Your TV Day," and suggest physical activity as an alternative.

* indicates Year 1 or Year 2 priority

6. Work with the AHA to promote public awareness of 1) the effects of physical inactivity on morbidity and mortality; 2) the relationship between physical fitness and reduced morbidity and mortality; and 3) how to incorporate regular physical activity into their lifestyles.
7. Conduct an analysis of current work site wellness programs. Consider offering recognition awards to work sites with wellness programs.

Reaching Native Americans

1. Expand the "Walk Across Montana" physical activity program for elementary students that was piloted on the Crow reservation.
2. Develop a culturally competent physical activity video for use by older Native Americans.

Surveillance

1. Continue to track the prevalence of no leisure-time physical activity, regular and sustained physical activity, and vigorous physical activity.

Nutrition

Overall Goals:

1. Increase the proportion of Montanans who eat at least five daily servings of fruit and vegetables.
2. Reduce the proportion of Montanans eating a high-fat, low-fiber diet.
3. Increase the number of Montanans who choose low-fat dairy products.
4. Increase the proportion of Montanans who choose whole grain products daily.

* indicates Year 1 or Year 2 priority

Specific Objectives:

HP2010 Objectives—Fruit Intake: Increase to at least 75 % the proportion of people aged 2 and older who consume at least two daily servings of fruit. Vegetable intake: Increase to at least 50% the proportion of people aged 2 and older who consume at least three daily servings of vegetables, with at least a third being dark green or deep yellow vegetables. (U.S. Baseline: 28% for fruit intake 1994-1996; 3% for vegetable intake 1994-1996.[7])

> *Current Status (Montana BRFSS 1998)*: Less than 25% reported eating 5 A Day (at least five servings of fruit and vegetables a day).[12]

HP2010 Objective—Fat Intake: Increase to at least 75% the proportion of persons aged 2 and older who consume no more than 30% of calories from fat. (U.S. Baseline: 33% 1994-1996.[7])

Actions:

Policy/Environmental Strategies

1. Obtain funding to implement WIC Farmers' Market Nutrition Education Program, which allows WIC clients to use vouchers for fruit and vegetables at local farmers' markets.*

* indicates Year 1 or Year 2 priority

2. Expand the number of Montana schools offering the School Breakfast Program.*
3. Assure that menu standards for meals served in institutions using state or federal funds for food services—such as correctional facilities, group homes, and assisted living facilities— meet the Healthy People 2010 standards for fat and fiber content.*
4. Promote 1% milk as the standard to be served in Montana schools.*
5. Establish dietary standards in school lunch offerings, including "a la carte" options and vending machines.*

Program Services

1. Promote "5 A Day" through the statewide nutrition coalition 5 A Day mini-grants program.*
2. Continue the "Healthy Families" statewide media campaign promoting healthy behaviors among Montana families.*
3. Conduct an annual school activity involving students in the planning of school meals. Encourage teachers to integrate nutrition lessons with math, language arts, and social studies lessons.
4. Replicate Missoula, Montana's "Garden City Harvest" community garden program in additional communities including reservations.

Reaching Native Americans

1. Expand the "Cooking for Good Health" classes, which have been implemented on the Blackfeet Reservation.
2. Develop a community garden project, modeled after the Crow tribe's "Crow Community Garden Project," to increase fruit and vegetable intake on Montana reservations.

Surveillance

1. Conduct a point-in-time telephone survey targeting the senior population and/or Medicare population to identify nutrition and physical activity behaviors and potential barriers.
2. Continue to track the number of Montanans reaching the 5 A Day goal.

* indicates Year 1 or Year 2 priority

Program Accomplishments

The Cardiovascular Health Program has collaborated with a variety of partners on the following CVD-related statewide activities:

- During 1999, the Cardiovascular Health Program conducted several baseline assessment surveys targeting Montana physicians, consumers, Native Americans, and elementary teachers and students. Results of these surveys were used in developing this CVD Prevention and Control Plan.
- The program awarded 20 organizations mini-grants to promote 5-A-Day in conjunction with Eat Right Montana, a statewide nutrition coalition. Eat Right Montana promoted Montana foods as part of a healthy diet. The coalition also piloted the "Kids' Sports & Fitness Fest" with elementary students to promote lifelong, non-competitive activity. A "how-to" manual was developed so that communities can replicate this event.
- Other nutrition coalition activities include the "Healthy Families 2000" statewide media campaign to encourage healthy behaviors in Montana families; the National Nutrition Month poster contest for elementary children; and the "Flavors of Montana" chefs' competition featuring healthy entrees.
- The program collaborated with Mountain-Pacific Quality Health Foundation to begin development of a Chronic Disease Monitoring System, which when completed will enhance physician efforts to monitor treatment for CVD as well as diabetes in the office setting.
- The program worked with Blue Cross Blue Shield of Montana to develop a Coronary Artery Disease Management System for patients who have suffered a myocardial infarction or other cardiac event.
- The program developed and disseminated the "Reach for Health" curriculum in conjunction with The Summit and Office of Public Instruction. This curriculum for 2nd- and 5th-grade teachers includes lesson plans and ideas to integrate nutrition, physical activity, and wellness with other subject areas.

Cardiovascular Disease Prevention Task Force

The CVD Prevention Task Force was established in 1999 to provide a forum for members to share cardiovascular disease-related projects, identify opportunities for collaboration, give input on developing the CVD Prevention and Control Plan, and help implement the plan. The CVD Task Force includes the following members:

Steven Akre, MD, Montana Care, Great Falls

Anne Bauer, Montana State Employee Benefits, Helena

Jonathan Bechard, MD, Kalispell

Kristi Blomquist, RN, Powell County Health Department, Deer Lodge

Hal Braun, MD, Missoula City-County Health Board, Missoula

Dan Burich, Bayer Pharmaceutical, Colorado Springs, Colorado

Doug Coffin, PhD, Department of Molecular Genetics, University of Montana, Missoula

Casey Clark, RN, CPHQ, New West Health Plan, Helena

Marnie Cranston, RD, Aging Services and Montana State University, Bozeman

Jennifer Dalrymple, Montana Department of Transportation, Helena

Harold Fain, MD, Great Falls

Steve Gilbert, Montana Department of Fish Wildlife & Parks, Helena

Dorothy Gohdes, MD, Consultant to Montana Chronic Disease Prevention Program, Albuquerque, New Mexico

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Roman Hendrickson, DO, Indian Health Service, Poplar

Ellie Hilpert, American Heart Association, Great Falls

Liz Johnson, APRN, Mountain-Pacific Quality Health Foundation, Helena

Joseph Knapp, Jr., MD, Missoula

John MacCart, MD, Harlowton

John McMahon, MD, Mountain-Pacific Quality Health Foundation, Helena

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Mary Pittaway, MA, RD, Missoula City-County Health Department, Missoula

Brad Roy, PhD, FACSM, The Summit/Kalispell Regional Medical Center, Kalispell

Spencer Sartorius, Office of Public Instruction, Helena

*co-chairs of the task force

The CVD Task Force meets quarterly, and members serve on two committees:

1) Prevention of Risk Factors— including diet, physical activity, preventing overweight and preventing tobacco use.
2) Management of Risk Factors— including high blood cholesterol, Type 2 diabetes, hypertension, smoking cessation and overweight.

The formation of the CVD Task Force positions its members to stay abreast of the latest advancements in CVD research, such as the association between homocysteine levels and CVD risk, and the link between infection and heart attack. The Task Force will help translate CVD-related research findings into practice and keep Montana's health professionals informed of national prevention and treatment guidelines.

Resources

- American Diabetes Association, 1-800-DIABETES, www.diabetes.org
- American Dietetic Association, 1-800-877-1600, www.eatright.org
- American Heart Association, 1-800-AHA-USA1 (Idaho/Montana Region, 800-592-7821), www.americanheart.org
- Bayer Pharmaceutical Indigent Care Program, 1-800-998-9180 (Prescription medications at no cost for qualifying individuals)
- Behavioral Risk Factor Surveillance System (BRFSS), www.cdc.gov/nccdphp/brfss (Find out how Montanans' health behavior practices compare with other states)
- Centers for Disease Control and Prevention (CDC), Cardiovascular Health Branch, (770) 488-2424, www.cdc.gov
- Montana Cardiovascular Disease Program, Montana Department of Public Health and Human Services, Cogswell Building, 1400 Broadway, Helena, Montana 59620-2951, (406) 444-2672, www.dphhs.state.mt.us/hpsd
- Montana Tobacco Use Prevention Program, Montana Department of Public Health & Human Services, Cogswell Building, 1400 Broadway, Helena, Montana 59620-2951, (406) 444-7408, www.dphhs.state.mt.us/hot/tobacco
- National Association for Sport and P.E., (703) 476-3461, www.aahperd.org/naspe.html
- National Cancer Institute, 5 A Day Program, 800-4-CANCER, www.5aday.gov
- National Heart, Lung, and Blood Institute (NHLBI), Information Center, (301) 251-1222, www.nhlbi.nih.gov

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